

CLAIMS

1. A method for manufacturing a glass body with coated surface, characterized in that the method comprises the following steps:
 - Cleaning and/or coating at least a partial area of the glass surface with a primer/cleaner;
 - Applying an isocyanate-curing polyacrylate lacquer containing mineral particles in a layer thickness of at least 10 μm to at least a partial area of the glass surface, and
 - Curing the coating.
2. The method according to claim 1, characterized in that the method additionally comprises one or more of the following steps independently from each other:
 - Mechanically removing adhering residual coatings on the glass surface;
 - Partially covering the glass surface, in particular with a masking film;
 - Removing the masking film and/or
 - Abrading the partially or completely cured coating to break the pointed edges.
3. The method according to one of the preceding claims, characterized in that the primer includes or comprises a polar, organic solvent having 2 to 12 carbon atoms, preferably 2 to 4, and at least one of the following groups: alcohol, keto, aldehyde, ester or acid group(s), preferably a C2 to C3 alcohol, and preferably less than 5 %w/w, preferably < 1 %w/w, of water independently thereof.
4. The method according to one of the preceding claims, characterized in that the residual coatings on the glass are removed by polishing with steel wool, in particular stainless steel wool.
5. The method according to one of the preceding claims, characterized in that the polyacrylate lacquer containing mineral particles is applied via silk-screen printing, spraying or rolling, preferably via silk-screen printing or spraying.
6. A glass body with coated surface, characterized in that the coating has an isocyanate-cured polyacrylate lacquer containing mineral particles.

7. The glass body with coated surface or method according to one of the preceding claims, characterized in that the cured coating has a layer thickness of 10 to 50 μm , preferably 15 to 30 μm .
8. The glass body with coated surface or method according to one of the preceding claims, characterized in that the mineral particles are oxides or mixed oxides of aluminum and/or silicon, including hydrates thereof.
9. The glass body with coated surface or method according to one of the preceding claims, characterized in that the mineral particles have an average diameter of 2 to 30 μm , preferably 5 to 25 μm .
10. The glass body with coated surface or method according to one of the preceding claims, characterized in that dyes, in particular color pigments, are added to the polyacrylate lacquer to manufacture color coatings.
11. The glass body with coated surface or method according to one of the preceding claims, characterized in that the glass body is acrylic glass, fire-resistant glass or multi-layer/composite glass, preferably type G-glazing fire-resistant glass and single-sheet safety glass (ESG), and that the coating is further preferably applied to the glass surface in built-in condition, in particular built into a frame.
12. The glass body with coated surface or method according to one of the preceding claims, characterized in that the glass body is single-sheet safety glass, and the coated glass has a surface tension that is roughly the same or maximally reduced by 10% relative to the uncoated glass.
13. The glass body with coated surface or method according to one of the preceding claims, characterized in that the polyacrylate lacquer is 2-component lacquer obtainable from at least one polyacrylate binder containing mineral particles and at least one isocyanate hardener having two or more reactive isocyanate groups per molecules, protected if necessary.
14. The glass body with coated surface or method according to one of the preceding claims, characterized in that the solvent share in the polyacrylate lacquer measures 20 to 80 %w/w prior to application.

15. The glass body with coated surface or method according to one of the preceding claims, characterized in that the solvent contains hydrocarbons and esters or alkoxy ester with 4 to 12, in particular 6 to 10 carbon atoms.
16. The glass body with coated surface or method according to one of the preceding claims, characterized in that the hardener contains a C4 to C12 diisocyanate and, if necessary, a silane derivative.
17. A method according to one of claims 1 to 5, characterized in that the method additionally involves the step of removing all residue without damaging the glass surface using a halogen hydrocarbon-containing stripper.
18. A use of the glass body with coated surface according to one of claims 7 to 16 for sun or visual protection, as safety labeling on glass, or as part of a floodlight system, in particular in hospitals.

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